



# Strengthening Governance of the Health Information System in Madagascar

## WHO ARE WE?

The PMI Measure Malaria (PMM) project is funded by the U.S. Agency for International Development's (USAID) President's Malaria Initiative (PMI). Its main objective is to support the strengthening of the routine health information systems (RHIS) and malaria surveillance, monitoring and evaluation (SME) in the 12 USAID-supported regions of Madagascar.

Building on the lessons learned and successes of USAID's MEASURE Evaluation project in scaling up web-based health information models and approaches, the PMM project seeks to strengthen the implementation of standards, the national strategic health information system management plan for access to health information at all levels of the health pyramid by strengthening the use of District Health Information Software, version 2 (DHIS2), and implementing innovative mobile dashboard and dashboard applications (apps) to enable health workers to access health information at all levels.

## Strengthen the Dissemination and Compliance of the Health Information System (HIS) Management Standards and Procedures

Developed with technical support from the MEASURE Evaluation project, the PMM project has advocated for and supported the application and implementation of HIS management standards and procedures at the central, intermediate, and peripheral levels to ensure the availability of quality health data. Compliance with these standards and procedures includes:

- Availability of trained HIS human resources with well-defined responsibilities at each level of the health system;
- Availability of web and paper-based electronic data management tools;
- Compliance with data completion, aggregation, and reporting deadlines; and
- Compliance with HIS monitoring and evaluation deadlines and data quality control.

The Directorate of Studies, Planning and Health Information Systems (DEPSI), with technical support from PMM, has created an e-mail group comprised of all program, regional, district, and partner managers to disseminate the electronic version of the HIS standards and procedures document, the HIS Strategic Plan, the standard operating procedures manual for the administration and management of the DHIS2-based information system, and more.

Supervisory visits and periodic data reviews are conducted regularly to verify and monitor compliance with standards and procedures regarding the timeliness of monthly activity reports, data completeness, and the skill levels of data managers. Action plans have been developed and are being monitored to strengthen compliance with HIS management standards and procedures.

## Dissemination of HIS Standards and Procedures to:

**100%** of health programs

**100%** of Ministry of Health partners

**100%** of health regions

**100%** of health districts

## Updating Data Management Tools and Training Supervisors and Providers on Filing Procedures

PMM, in collaboration with other partners, has provided technical support to the central departments of the Ministry of Public Health (the Family Health Department, the National Malaria Control Program, the Expanded Program on Immunization Department, the Directorate of Studies, and the DEPSI) in updating the collection tools and completion guides. These management tools include the:

- Review protocol and the maternal death notification form;
- Monthly Community Activity Report and its completion guide;
- Monthly Hospital Activity Report and its completion guide;
- Action Plan for Private Health Sector Data Integration;
- User Guide for the Scorecard and Dashboard Mobile Applications for Malaria and Maternal and Child Health;
- DHIS2 User Guide with integration of Immunization Database (DVDMT), DQR, Immunization Analysis Tool, and EPI Logistics Report; and
- Guide to Coaching HIS Managers at All Levels of the Health Pyramid.

Through the review protocol and reporting form, PMM and the Directorate of Family Health (DSFA), in collaboration with partners Accessible Continuum of Care and Essential Services (ACCESS), the World Health Organization (WHO), and the United Nations Population Fund (UNFPA), developed the 2020-2021 annual report on maternal deaths. The Expanded Program on Immunization, with technical support from PMM and the WHO, used DVDMT data to develop monthly immunization reports submitted to the WHO AFRO. DEPSI has incorporated community and hospital data into the 2020 and 2021 statistical yearbooks. With the dashboards and mobile apps, the Malaria Control Program has developed monthly malaria bulletins and health facilities have developed action plans.

### Update Data Quality Assessment Tools and Coach Supervisors on Their Use

In addition to the Routine Data Quality Assessment (RDQA) and supervision tools developed by MEASURE Evaluation, PMM has supported DEPSI in updating the validation rules and integrating the Data Quality Review (DQR) and the Immunization Analysis Tool into DHIS2. These tools allow central level managers as well as regional and district management teams to conduct data quality assessments, permitting them to identify health facilities that report inconsistent data.

The use of these electronic data quality assessment tools also allows central and intermediate level managers to communicate regularly with the health facilities and possibly notify them of the need to review and correct inconsistencies in reported values on certain data elements. Most of these inconsistencies were corrected immediately and reduced the cost and resource allocation for supervisory visits.

Only a few supervisory visits were conducted for an in-depth investigation of certain data inconsistencies that the identified health facilities were unable to correct.

After correcting these data quality issues and resolving the inconsistencies, these facilities received guidance to prevent the same problems from recurring in future reports.

The Ministry of Health has validated and adopted these online tools as the standards for data quality assessment that all stakeholders have adopted and implemented.

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*A central official said: “The harmonized tools will provide a holistic view of the situation on data quality at the program level.”*

*A regional supervisor said: “The updated tools are simpler and easier to use to conduct data quality reviews.”*

*According to a partner of the Ministry of Health, “The use of the Data Quality Tool (DQT) integrated in DHIS2 allows to prioritize the districts and health training to be supervised.”*

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## Regional and District Management Team Perceptions of HIS Documents

When asked about their role in the use of all HIS documents, a member of the district management team replied: “HIS documents shared centrally serve as a reference tool to be used for the coaching of health personnel, especially new recruits.”

He also emphasized the contribution of these documents to the understanding of HIS, stating that “they facilitate the understanding and acquisition of skills related to the use of new information and communication technologies.”

## Partners’ Perceptions of HIS Documents

A Ministry of Health partner noted that “strategic and technical documents facilitate common understanding and coordination of HIS strengthening activities.”



From left: Data review with the use of mobile apps in the Toliara II district quarterly meeting; from right: Training on the use of mobile apps in the Toliara II district. Photos courtesy of PMI Measure Malaria.

## Use of Training Curricula and the Data Quality Management and Evaluation Guide

To ensure the continued use of the training curricula developed by MEASURE Evaluation, PMM updated them based on the recommendations of the initial training group. To date, the following partners are using these documents in their activities in support of the Ministry of Health:

**3**

USAID  
partners

**2**

UN  
organizations

**3**

Other  
organizations

These standard curricula have been reviewed and validated by the Ministry of Health's Service de Formation et de Perfectionnement (SFP) to ensure that the content is consistent with national recommendations. The curricula and guides developed with PMM's technical support cover DHIS2, data quality assessments (DQR, RDQA), formative supervision of the HIS, and evaluation of data use (mobile scorecard and dashboard apps and the web dashboard module).



### **Monitoring and Evaluation of Implementation of the Strategic Plan for Strengthening of the HIS**

PMM and partners supported DEPSI in organizing a midterm monitoring and evaluation workshop on the implementation of the National Strategic Plan for the HIS. The results of this workshop showed that the rate of realization of the activities was 68 percent.

The establishment of joint support for the HIS by partners has allowed for better use of financial and human resources to avoid duplication and the use of different tools and methodologies.

PMM has contributed to the establishment and operation of the HIS technical working group, formed with USAID partners, that meets monthly to monitor and discuss progress and challenges in the implementation of HIS strengthening activities and their alignment with the national HIS strengthening strategic plan.



### **Support for Integration of Apps and Modules to Complete Implementation of the DHIS2 Action Plan**

As part of the ongoing implementation of the DHIS2 action plan, PMM collaborated with ACCESS and IMPACT to provide technical and financial assistance to DEPSI to update and parameterize the monthly community and hospital activity reports.

Moreover, the integration of applications such as DVDMT and the Immunization Analysis Tool into DHIS2 was facilitated by PMM's technical support, in collaboration with the WHO, to the Directorate of the Expanded Program on Immunization (DPEV). The project also led work on the review of validation rules for maternal and child health, malaria, and immunization indicators.

The integration of community and hospital data into DHIS2 has provided real-time access to comprehensive health information.



### **Stakeholder Participation and Ownership in the Development and Implementation of HIS Standard Tools and Strategies**

PMM adopted a participatory approach while providing technical support to the improvement of the HIS. USAID partners, UN organizations, and other local private organizations have agreed to join PMM in contributing technically and financially to the design of management tools, strategies, IT procurement, internet connectivity, and the organization of HIS and data quality assessments. This approach, initiated and implemented by PMM, has provided the Ministry of Health with standard tools and strategies, used by all stakeholders, to conduct joint interventions that strengthen the HIS.



## The HIS Technical Working Group Has Strengthened the Coordination of Technical Assistance from HIS Partners

PMM developed the action and monitoring plan for USAID partner-supported activities to strengthen the HIS with input from members of the HIS technical working group. This group of USAID partners meets monthly to discuss progress and challenges in implementing HIS activities and to explore opportunities for joint interventions. Discussions at the monthly meetings allowed PMM to conduct data quality reviews and assessments with ACCESS and IMPACT. This also allowed PMM to train stakeholders on the use of DHIS2 and the development of dashboards at the district and health facility levels.



Training on the use of mobile apps in the Toliara II district. Photo courtesy of PMI Measure Malaria.

## Opportunities and Challenges in Strengthening HIS Management Governance

PMM initially focused on strengthening the governance of the HIS, which is a critical step in understanding the goals and guiding principles of the health system. Indeed, the project's activities on monitoring compliance with standards and procedures have ensured the implementation of operational standards for the management and use of health data. The review and use of guides and monitoring tools, as well as data quality assessments, has helped measure the level of compliance with HIS standards. The follow-up of strategic and action plans with technical and financial support from PMM has been crucial to the identification of activities toward an HIS that generates quality data.

New applications developed by partners must comply with standards and procedures and align with the activities defined in the HIS strategy. Despite there being a national instance of DHIS2, some partners use their own parallel electronic databases for data entry. PMM is working with these partners to align their data with the national HMIS and reduce data duplication.



## Next Steps for Strengthening HIS Management and Governance

With the implementation of the data entry initiative at the health facility level, DEPSI should consider updating the HIS standards and procedures given that the roles of the CSB data managers will change. DEPSI should also work toward the development of the National Strategic Plan for HIS strengthening, which is to be operational by July 1, 2023. Strengthening tools for the monitoring of compliance with HIS standards and conducting data quality assessments are priorities for ensuring that health information is used in decision making.



Training on the use of mobile apps in the Toliara II district. Photo courtesy of PMI Measure Malaria.

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